

REMARKS

In view of the amendments proposed above, Applicants respectfully request consideration of the following remarks.

Anticipation Rejections Under 35 U.S.C. § 102

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

Anticipation Rejection Based on U.S. Patent Application 2004/0157407 to Tong et al.

Claims 1-6 and 13-21 were rejected under 35 U.S.C. § 102(e) as being anticipated by United States Patent Application 2004/0157407 to Tong et al. (hereinafter “Tong”). Applicants respectfully traverse this rejection, as set forth below.

Tong does not disclose the method recited in each of independent claims 1 and 13, as amended. Note that, in all embodiments disclosed in Tong, the regions of the wafer surfaces surrounding the contacts are chemically bonded, and it is this chemical bond between the non-contact regions of the wafers that causes contact pressuring bonding to occur between the metal contacts (or, alternatively, the chemical bond may facilitate a post-bond reflow). See, e.g., paragraphs 0022, 0047, 0050, 0066, 0067, 0083, 0084, 0095, and 0100 of Tong.

In contrast to Tong, in the claimed embodiments, the “*all* regions of the first and second wafer surfaces surrounding the mating conductors remain unbonded,” as recited in each of claims 1 and 13. Support for the amendments to claims 1 and 13 can be found in Applicants’ as-filed specification at, for example, paragraph 0034 and FIG. 2G. Thus, claims 1 and 13 are novel in view of Tong. Further, claims 2-6 and 14-21 are allowable as depending from novel independent claims 1 and 13, respectively.

Obviousness Rejections Under 35 U.S.C. § 103

To reject a claim or claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a prima facie case of obviousness. M.P.E.P. § 2142. When establishing a prima facie case of obviousness, the Examiner must set forth evidence showing that the following three criteria are satisfied:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references (or references when combined) must teach or suggest all the claim limitations. M.P.E.P. § 2143.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on the applicant’s disclosure. M.P.E.P. § 2142 (citing *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991)). Also, the evidentiary showing of a motivation or suggestion to combine prior art references “must be clear and particular.” *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999).

Obviousness Rejection Based on U.S. Patent Application 2004/0157407 to Tong et al. in View of Wolf et al., Silicon Processing for the VLSI Era, vol. 1, 1986

Claims 7 and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tong in view of Wolf et al., Silicon Processing for the VLSI Era, vol. 1, 1986 (hereinafter “Wolf”). Applicants respectfully traverse this rejection, as set forth below.

As noted above, Tong fails to disclose all limitations of independent claims 1 and 13. Wolf, either individually or in combination with Tong, also fails to disclose all limitations of independent claims 1 and 13. If an independent claim is nonobvious, then any claim depending from the independent claim is also nonobvious. M.P.E.P. §2143.03 (citing *In re Fine*, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988)). Therefore, claims 7 and 22 are allowable as depending from nonobvious independent claims 1 and 13, respectively.

Obviousness Rejection Based on U.S. Patent Application 2004/0157407 to Tong et al. in View of U.S. Patent Application 2002/0027294 to Neuhaus et al.

Claims 8-11 and 23-26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tong in view of United States Patent Application 2002/0027294 to Neuhaus et al. (hereinafter “Neuhaus”). Applicants respectfully traverse this rejection, as set forth below.

As noted above, Tong fails to disclose all limitations of independent claims 1 and 13. Neuhaus, either individually or in combination with Tong, also fails to disclose all limitations of independent claims 1 and 13. If an independent claim is nonobvious, then any claim depending from the independent claim is also nonobvious. M.P.E.P. §2143.03

(citing *In re Fine*, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988)). Therefore, claims 8-11 and 23-26 are allowable as depending from nonobvious independent claims 1 and 13, respectively.

Claim Objections - Allowable Subject Matter

Claims 12 and 27 were objected to as being dependent upon a rejected base claim, but each of these claims would be allowable if rewritten in independent form. Office Action, at page 8. As set forth above, each of independent claims 1 and 13 is patentable in view of the cited prior art. Thus, Applicants submit that each of claims 12 and 27 is patentable as written in dependent form.

CONCLUSION

Applicants submit that claims 1-27 are in condition for allowance and respectfully request allowance of such claims.

Please charge any shortages and credit any overages to Deposit Account No. 02-2666.

Respectfully submitted,

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Signature: Theresa Belland 08/07/06
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